



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/737,104	12/16/2003	Yi Luo	74435	5488
27377	7590	12/21/2005		
MACMILLAN, SOBANSKI & TODD, LLC ONE MARITIME PLAZA-FOURTH FLOOR 720 WATER STREET TOLEDO, OH 43604			EXAMINER ISSING, GREGORY C	
			ART UNIT	PAPER NUMBER
			3662	

DATE MAILED: 12/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/737,104

Applicant(s)

LUO ET AL.

Examiner

Gregory C. Issing

Art Unit

3662

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 October 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 3662

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1 and 3-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sari et al (6,791,477) in view of Lau (5,883,594), Sheynblat (6,720,915), and either one of Ayed (6,407,698) or Brust et al (6,650,999).

3. Sari et al teach a method and apparatus for a vehicle locating system a vehicle-mounted location unit 16 that receives GPS data from GPS satellites for determining vehicle location data and a portable key fob 10 (2:4-10) which, as shown in Figure 8, includes (1) a second GPS receiver 94 that operates upon user pressing of button inputs, (2) a transceiver/modem 118/120/22 for bi-directional data transfer communication with other devices (2:12-14 and 28-31), (3) compass 114 for providing directional information, and (4) a display 50 for providing directional indications to a waypoint. The intended use of the waypoint information and position information is to provide the user with directional bearing indications to navigate from the instant position to the waypoint associated with the vehicle, as well as other waypoints.

4. Sari et al differ from the claimed subject matter since the provision of assistance data is not taught and the provision of remote processing is not taught.

5. Lau teaches, in the portable GPS environment, the provision of transmitting assistance data to a portable GPS receiver which provides the advantage of reducing power consumption and increasing the speed for a first fix by using GPS information provided by a message system associated with another GPS receiver instead of reading the GPS information in the GPS signal (2:34-49). The assistance data includes satellite visibility, health and ephemeris data (2:1-7 and 4:26-40).

6. Sheynblat also teaches, in the portable GPS environment, the provision of transmitting assistance data to a portable GPS receiver in what is known as wireless assisted GPS (WAG) to achieve performance improvements for faster acquisition wherein the assistance data may include an ordered set

Art Unit: 3662

of satellites to be searched, estimated time of arrival of these signals and the expected frequency (Doppler) of the signals (9:50-10:18).

7. Each of Ayed and Brust et al teach the conventionality of remote processing of bearing information in a vehicle locator system.

8. Ayed teaches, in a vehicle locator environment, a vehicle locator wherein it is known to (1) determine the current location and heading, (2) retrieve parked vehicle location, (3) determine the relative distance and bearing to the parked vehicle location from the current location, and (4) conveying the relative distance and bearing to the user (4:63-5:4). Additionally, it is taught that an alternative known embodiment includes the determination of bearing and distance being performed remotely from the portable device 12 (5:15-23).

9. Brust et al teach, in a vehicle locator environment, remote processing of route determination information in response to the mobile terminal's position data and stored waypoint data associated with a parked vehicle (10:37-49). The determination of route information inherently includes bearing information.

10. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Sari et al by providing assistance data to the portable key fob from a separate GPS receiver in view of the teachings of each of Lau and Sheynblat et al who teach the conventionality of providing assistance data in order to reduce power consumption in a portable GPS navigation device. In light of the fact that the vehicle additionally includes a GPS receiver connected to a substantially greater power source, i.e., the vehicle battery, and which is operating prior to the portable device's operation, the vehicle GPS receiver would clearly have the required assistance data available thereat. The combined teachings of Lau and Shenyblat et al teach the claimed components for the assistance data including the claimed ephemeris data, clock data, and Doppler data. Furthermore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify Sari et al by determining the bearing data between the fob location data and the vehicle location data remotely from the portable key fob location in view of the teachings of either one of Ayed or Brust et al in light of the fact that it is merely a conventional alternative embodiment which would reduce the processing requirements

Art Unit: 3662

in the portable device and thus reduce the power requirements of the portable key fob, which obviously includes a small power source.

11. The applicant argues that the combination fails to teach the claimed system and method since (1) according to the applicant the portable device of Sari et al is normally out of range of the vehicle in contrast to the claimed system which requires the portable fob to be within range of the vehicle mounted unit; (2) Lau does not teach any transmission of location data from the portable unit back to the base station so that the base station determines a bearing; (3) Sheynblat does not teach any waypoints or bearing determination; (4) Ayed only teaches one receiver so there is no transfer of aiding data nor transfer of location data; and (5) Brust et al do not transmit fob location data to a vehicle in order for the vehicle to determine a bearing.

12. Applicant argues the prior art references individually and fails to argue the combination as a whole as set forth in the Office Action. Moreover, the applicant fails to argue claim limitations when arguing that claim 1 requires the portable fob to be within range of the vehicle-mounted unit whereas in Sari et al the fob and vehicle would not be within range. There is nothing in Sari et al to substantiate the applicant's allegation. In fact, the key fob of Sari et al includes a bi-directional communication device that is capable of communication using any well-known communication platform and is capable of communicating with any other device; the fact that the vehicle GPS receiver transmits its position information to the key fob clearly suggests that the vehicle GPS device includes a communication source. Applicant's allegations of the failure of each of the secondary references teaching a limitation that it was not cited for fail to overcome the rejection.

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action

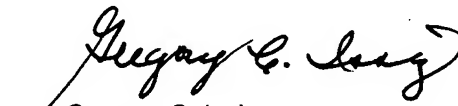
Art Unit: 3662

is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory C. Issing whose telephone number is (571)-272-6973. The examiner can normally be reached on Monday - Thursday 6:00 AM- 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Tarcza can be reached on (571)-272-6979. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Gregory C. Issing
Primary Examiner
Art Unit 3662

gci